

18. PERMANENT MARKING SYSTEMS FOR CROCODILIANS

INTRODUCTION

Captive breeding and wild management of crocodilians necessitates establishing marking systems which are simple, permanent and conspicuous. The use of monel metal number tags (cattle tags such as are used in sea turtle tagging programs) clipped in the web of crocodile hind feet may be a useful semi-permanent marking system. The main drawbacks are that the animal must be captured for close examination of the tag and that the webbing may tear.

The Madras Crocodile Bank has a population of about 150 crocodilians. Many of these will be released through the State Forest Department and the remainder are retained as breeding stock. We are interested that correct sex ratios are maintained for release and captive breeding and that the breeding stock will continue receiving new genetic material.

METHODS

Caudal Clipping: Our main marking system is the clip method. By clipping the protruding double (DCW) and single (SCW) caudal whorls (the pointed dorsal tail scutes) at the base, one achieves a simple permanent identification mark. Hatchling and yearling crocodiles may have to be clipped again at 2 or 3 years as the scutes grow back partially. We use ordinary clean surgical scissors for

clipping smaller animals and a good pair of garden clippers are suitable for clipping larger animals. Considering that 12 DCWS and 5 SCWS (tailtips are frequently lost) are available for permanent marking, there are over 100 combinations.

The crocodile is securely held and the DCW or SCW quickly and firmly cut off at its thick base. The wound bleeds slightly (antiseptic may be applied) and heals quickly. We clip every female on the first left DCW and use other clippings for age and genetic coding (i.e. 1st right DCW is a 1977 hatching, 1st SCW signifies origin is Tamil Nadu).

Branding: In the U.S. where biologists are working with large alligator populations, branding the lateral surfaces of the caudal scutes is used for permanent conspicuous marking (C. A. Ross, pers. Comm. 1977). A portable 6 or 12V battery operated soldering iron is used in the field and 110V wall plug soldering iron for captive conditions. The hot tip is gently touched for a moment on the desired spot resulting in a dark spot brand. The crocodile apparently suffers only momentary discomfort and the possible combinations are almost infinite. In the case of crocodilians like the *C. palustris* and *Gavialis gangeticus* inhabiting open river areas branding and clipping may prove to be suitable for distant visual identification of specific animals using binoculars or spotting scopes.

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